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CHARACTER OF THE 1939 FIRE SEASON IN REGION ONE

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The 1939 fire season in the Northern Rocky Mountain region was the shortest that has been measured since the present rating system was commenced in 1934. The present season included only 61 days, July 12 to September 10, inclusive, from the beginning of sustained class 4 or higher danger to sustained class 3 or lower. The 1935 season included 100 such days.

The shortness of the 1939 season was offset, however, by the relatively high danger persisting without a material break from July 28 to August 25. September 8, 9, and 10 also were abnormally dangerous on most of the forests west of the Continental Divide. All forests except the Custer received good rains on September 11, 12, or 13 which ended the fire season.

As shown by the following tabulation of percentage of worst probable danger for the western forests, the 1939 season rates as average in fire danger, not a single forest rating critical (66 percent or more) and none rating easy (33 percent or less). It is noteworthy that this is the third consecutive year with no forests rating as critical. These ratings are in all cases for the period July 1 to August 31, inclusive, and are based upon a July-August average of class 5.5 equaling the worst probable or 100 percent, with an average of class 2.8 equaling the least probable or 0 percent.

Forest	1934	1935	1936	1937	1938	1939
	Percent of worst probable					
Bitterroot	59	59	44	61	39	52
Cabinet	74*	48	70*	50	54	60
Clearwater	78*	52	51	50	37	45
Coeur d'Alene	63	48	52	36	48	60
Flathead	85*	52	69*	58	48	56
Kaniksu	59	30	56	39	50	62
Kootenai	67*	44	77*	47	52	58
Lolo	78*	59	77*	58	44	60
Nezperce	81*	70*	56	54	37	59
St. Joe	63	59	49	43	41	56

* Identifies ratings of "critical."

The past season, like that of 1938, brought the highest danger, from 60 to 62 percent, on the contiguous Lolo, Cabinet, Coeur d'Alene, and Kaniksu Forests. While much of this rating was definitely due to extremely dry fuels and consequently rapid rate of spread of fire, a material factor was reduced visibility caused by the long drawn out Mica Peak and Spirit Lake fires to the west of these forests. Likewise the smoke from the shorter duration Gleason Mountain fire on the Kaniksu affected most of that forest and parts of the Kootenai, while the Kelley Creek fire on the Nezperce reduced visibility over most of its area and on parts of the Lolo. In all cases, danger was definitely higher due to this condition and more lookouts had to be used while these smokes prevented the ordinary detection system from insuring quick discovery at small size.

The outstandingly low rating for the Clearwater Forest is believed to be due partly to exceptionally beneficial June and early July rains, and partly to the fact that visibility in that area was not materially reduced by large fires to windward. Furthermore, the Clearwater reported lightning storms on only 14 of the 83 days between June 20 and September 11.

Lightning, which was an almost continuous threat in 1938, was a concentrated menace in 1939. Against a 15-year normal of 58 lightning storm days in the 83 days between June 20 and September 11, the 10 western forests this year reported storms on only 40 days. The customary epidemic of storms on July 10 to 15 occurred again this year on every one of the 17 forests in this region. These storms brought generally good rainfall, however, and fuel moistures were sufficiently high to favor easy control of the few fires that resulted.

The widespread storms of August 25 to 28 were of a different type and came following a period of extremely low fuel moistures. As a result the Forest Service had to meet the organization-taxing load of 716 fires in the last six days of that month. The Gleason Mountain fire on the Kaniksu was the only one of these that reached really large size. State and private timber protective organizations were subjected to a similar overload of fires.

Weather Bureau reports for the past season show that most of the region west of the Continental Divide experienced an April 1 to August 31 deficiency in rainfall of from 20 percent to 60 percent. The Bureau records also show high winds of 20 m.p.h. or more average for 24 hours at one or more places on July 16, 17, August 6, 12, 28, and September 5. Such windy days are the very ones that so often sweep a fire out of the small and easy size and put it into the size that actually makes weather of its own. These highly dangerous days cannot be met successfully except with an organization larger than needed during ordinary weather, yet it is always very difficult and often impossible to expand the organization quickly enough to be ready when the high winds arrive. The accident or chance of fires starting or not starting on these bad days is one of the factors that often make the difference between a bad and a good fire season from the standpoint of the protective organization records. This year the Gods, and the incendiarists, were reasonably kind.